ABSTRACT

There is disclosed an ink jet printhead which comprises a plurality of nozzles 3 and one or more heater elements 10 corresponding to each nozzle 3. Each heater element 10 is configured to heat a bubble forming liquid 11 in the printhead to a temperature above its boiling point to form a gas bubble 12 therein. The generation of the bubble 12 causes the ejection of a drop 16 of an ejectable liquid (such as ink) through an ejection aperture 5 in each nozzle 3, to effect printing. When the gas in the bubble 12 recondenses, the bubble collapses to a 'collapse point' 17. In each nozzle 3, the distance between the collapse point 17 and the ejection aperture 5 is less than 50 microns. The collapse of the bubble 12 assists the ejection of the drop 16 by promoting the 'necking' 18 of ink 11 between the aperture 5 and the drop 16 during ejection. The drop 16 requires less momentum to overcome the retarding forces of surface tension, which in turn provides greater energy efficiency.

Fig. 4